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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicants : Thomas R. Szabo et al.
Application No. : 10/020,867
Filed : December 14, 2001
For : COBALT-PORPHYRIN COMPLEXES AND USE THEREOF AS
AN ANTI-OBESITY AGENT

Docket No. : 660088.415
Date : March 5, 2002

Commissioner for Patents
Washington, DC 20231

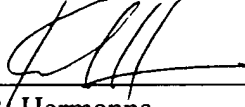
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In accordance with 37 C.F.R. §§ 1.56 and 1.97 through 1.98, applicants wish to make known to the Patent and Trademark Office the references set forth on the attached Form PTO-1449 (copies of the cited references are enclosed). As to any reference supplied, applicants do not admit that it is "prior art" under 35 U.S.C. §§ 102 or 103, and specifically reserve the right to traverse or antedate any such reference, as by a showing under 37 C.F.R. § 1.131 or other method. Although the aforesaid references are made known to the Patent and Trademark Office in compliance with applicants' duty to disclose all information they are aware of which is believed relevant to the examination of the above-identified application, applicants believe that their invention is patentable.

Please acknowledge receipt of this Information Disclosure Statement and kindly make the cited references of record in the above-identified application.

Respectfully submitted,
Seed Intellectual Property Law Group PLLC



Karl R. Hermanns
Registration No. 33,507

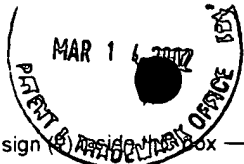
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Enclosures:

Postcard
PTO/SB/21
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Cited References (6)

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TRANSMITTAL FORM (To be used for all correspondence after initial filing)	Application Number	10/020,867
	Filing Date	December 14, 2001
	First Named Inventor	Thomas R. Szabo
	Group Art Unit	Not yet assigned
	Examiner Name	Not yet assigned
	Attorney Docket No.	660088.415

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ENCLOSURES (check all that apply)

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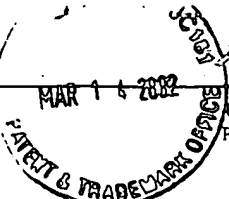
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Individual Name	Karl R. Hermanns, 33,507	 00500 PATENT TRADEMARK OFFICE
Signature		
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U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
660088.415APPLICATION NO.
10/020,867

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANTS

Thomas R. Szabo et al.

FILING DATE

December 14, 2001

GROUP ART UNIT

Not yet assigned

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
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	AC						
	AD						
	AE						
	AF						

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FOREIGN PATENT DOCUMENTS

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					YES	NO
	AG					
	AH					
	AI					

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

RR	AJ	Choi et al., "Weight loss in rats treated with intracerebroventricular cobalt protoporphyrin is not specific to the neuropeptide Y system," <i>Brain Research</i> 729(2):223-227, August 12, 1996.
RR	AK	Galbraith and Kappas, "Cobalt-protoporphyrin suppresses expression of genetic obesity in homozygous (fa/fa) Zucker rats," <i>Pharmacology</i> 41(5):292-298, 1990.
RR	AL	Galbraith and Kappas, "Regulation of food intake and body weight by cobalt porphyrins in animals," <i>P.N.A.S. USA</i> 86(19):7653-7657, October 1989.
RR	AM	Sies, "Ebselen, a selenoorganic compound as glutathione peroxidase mimic," <i>Free Radical Biology Medicine</i> 14(3):313-323, March 1993.
RR	AN	Tomaro et al., "Heme oxygenase induction by CoCl ₂ , Co-protoporphyrin IX, phenylhydrazine, and diamide: evidence for oxidative stress involvement," <i>Arch. Biochem. Biophys.</i> 286(2):610-617, May 1, 1991.
RR	AO	Turner et al., "Lack of NPY-induced feeding in cobalt protoporphyrin-treated rats is a postreceptor defect," <i>Physiology Behavior</i> 56(5):1009-1014, November 1994.

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660088.415APPLICATION NO.
10/020,867

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APPLICANTS

Tomas R. Szabo et al.

FILING DATE

December 14, 2001

GROUP ART UNIT

1614

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
RR	AA	4,948,792	08/14/90	Kappas et al.	514	185	
RR	AB	5,084,475	01/28/92	Kappas et al.	514	410	
RP	AC	5,149,697	09/22/92	Johnson et al.	514	185	
RP	AD	5,192,757	03/09/93	Johnson et al.	514	185	
RR	AE	5,929,064	07/27/99	Goel et al.	514	185	
	AF						
	AG						
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	AI						
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	AK						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AL					
	AM					
	AN					
	AO					
	AP					

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

RR	AQ	Markush Chemical Structure Search Results for Porphyrin Type Compound with isopropyl group, Chemical Abstract Service MARPAT Database, February 24, 2003.
RR	AR	Markush Chemical Structure Search Results for Porphyrin Type Compound with benzyl and phenyl groups, Chemical Abstract Service MARPAT Database, February 24, 2003.
	AS	

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R. R. Rayner

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660088.415APPLICATION NO.
10/020,867SUPPLEMENTAL
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1614

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*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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AB						

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
				YES	NO
RR	AC	WO 97/05152	02/13/97	WIPO	
	AD			COPY OF PAPERS ORIGINALLY FILED	
	AE				

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

RR	AF	Amersi et al., "Upregulation of heme oxygenase-1 protects genetically fat Zucker rat livers from ischemia/reperfusion injury," <i>Journal of Clinical Investigation</i> 104(11):1631-1639, December 1999.
RR	AG	Dickinson and Chien, "Model System of Cobalt-Cytochrome c," <i>Inorganic Chemistry</i> 15(5):1111-1114, 1976.
RR	AH	Dickinson and Symons, "Electron Spin Resonance Monitoring of Ligand Ejection Reactions Following Solid-State Reduction of Cobalt Globin and Cobalt Protoporphyrin Complexes," <i>Journal of Physical Chemistry</i> 86:917-921, 1982.
RR	AI	Hoffman et al., "Quantitation of a novel metalloporphyrin drug in plasma by atomic absorption spectroscopy," <i>Journal of Pharmaceutical Biomedical Analysis</i> 19(3-4):319-326, March 1999.
RR	AJ	Kumar et al., "NADP+-specific isocitrate dehydrogenase interaction with metalloporphyrin in rat brain," <i>Clinical Chemistry and Enzymology Communications</i> 7(5-6):349-357, 1997.
RR	AK	Sakurai et al., "Model of the Coordination Site for Cobalt-Substituted Cyochrome P450 _{cam} ," <i>Journal of Inorganic Biochemistry</i> 26:55-62, 1986.
RR	AL	Takayanagi et al., "The Ligation of Phosphine Derivatives and the Oxygen-binding Properties of the Cobalt Mesoporphyrin IX Dimethyl Ester in Toluene," <i>Bulletin of the Chemical Society of Japan</i> 48(10):2618-2622, 1975.
RR	AM	Wicker Jr. et al., "The Relationship Between Enthalpy Changes and Oxygenation Constants for Cobalt and Iron Porphyrins," <i>Inorganica Chimica Acta</i> 78:181-189, 1983.
RR	AN	Yamamoto et al., "Oxygen Binding of Cobalt(II) Proto-, Deutero- and Meso- Porphyrin IX Dimethyl Ester Complexes in Organic Solvents," <i>Bioinorganic Chemistry</i> 7:189-201, 1977.

EXAMINER

R. K. Karpman

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